



Alexandru Tîrziu

Date of birth: 11/02/1997 Nationality: Romanian Gender: Male Telephone 0256 490507

Email alexandru.tirziu@umft.ro

Address: Tudor Vladimirescu street, no. 14A, 300174, Timisoara, Romania (Work)

PROFESSIONAL EXPERIENCE

01/10/2022 – ONGOING Timișoara, Romania

ASSISTANT PROFESSOR VICTOR BABEȘ UNIVERSITY OF MEDICINE AND PHARMACY

Teaching, seminars, practical and laboratory work, assessment activities.

Department Department III - Functional Sciences, Discipline of Physiology

03/01/2022 – IN PROGRESS Timișoara, Romania

RESIDENT CARDIOLOGIST INSTITUTE OF CARDIOVASCULAR DISEASES

Doctor undergoing professional training, postgraduate education, in accordance with the Ministry of Health curriculum.

EDUCATION AND PROFESSIONAL TRAINING

10/2021 – IN PROGRESS Timișoara, Romania

PHD CANDIDATE, MEDICINE Victor Babeș University of Medicine and Pharmacy, Timișoara

Address Piața Eftimie Murgu, nr. 2, 300041, Timișoara, Romania | **Website** <https://www.umft.ro>

09/2015 – 07/2021 Timișoara, Romania

DOCTOR-MEDIC Victor Babeș University of Medicine and Pharmacy Timișoara

Address Piața Eftimie Murgu, no. 2, 300041, Timișoara, Romania

LANGUAGE SKILLS

Mother tongue(s): **ROMANIAN**

Other language(s):

	COMPREHENSION		SPEAKING		WRITING
	Oral comprehension	Reading	Written expression	Conversation	
ENGLISH	C1	C1	C1	C1	C1

Levels: A1 and A2 Basic user B1 and B2 Independent user C1 and C2 Proficient user

DIGITAL SKILLS

Microsoft Office (Word, Excel, PowerPoint) | Basic knowledge of C, C++, Python | Basic knowledge of Linux | Java (Android Studio) – beginner | Adobe Illustrator – intermediate | Adobe Photoshop – intermediate | Adobe Animate - intermediate level | Adobe After Effects - beginner level | Ability to work in PyMol and GraphPad Prism

● CONFERENCES AND SEMINARS

17/09/2025 – 20/09/2025 Sinaia

National Cardiology Congress, 64th edition

- **Tîrziu A.**, Răşinar F., Brie D., Mornoş C., Gaiţă D., Luca C.T. Interventional treatment of Heyde syndrome: a clinical case of severe aortic stenosis and gastrointestinal haemorrhage, National Cardiology Congress, 64th edition, 17-21 September 2025, Sinaia, Romania
- Şteţco A.A., Mornoş C., Luca C.T., Gaiţă D., **Tîrziu A.**, Brie D.M. Ischemia without significant coronary obstruction: from symptom to diagnosis in INOCA syndrome, National Cardiology Congress, 64th edition, 17-21 September 2025, Sinaia, Romania

29/08/2025 – 01/09/2025 Barcelona, Spain

European Society of Cardiology (ESC) Congress

D M Brie, R M Christodorescu, C T Luca, C Mornos, S R Dragan, D Darabantiu, **A Tîrziu**, Impact of comprehensive heart failure management initiated during hospitalisation on clinical outcomes in patients with decompensated heart failure with reduced ejection fraction, European Heart Journal, Volume 46, Issue Supplement_1, November 2025, ehaf784.960, <https://doi.org/10.1093/eurheartj/ehaf784.960>

23/04/2025 – 26/04/2025 Bucharest

STOP Cancer Symposium

Tîrziu A., Păunescu V. Designing anti-Her2 CAR-NK92 cells and their exosomes to target breast cancer cells, STOP Cancer, 23–26 April 2025, Bucharest, Romania (oral presentation).

20/09/2023 – 23/09/2023 Sinaia

National Cardiology Congress, 62nd edition

- **Tîrziu A.**, Răşinar F., Cevei I, Dăneasa L, Mornoş C, Gaiţă D, Luca CT, Brie DM. Complex management of concomitant coronary and valvular disease: A case presentation of TAVI and PCI integration (poster).
- Răşinar CF, Cevei I, Buhaceanu A, Dăneasa L, **Tîrziu A.**, Mahmoud H, Mornoş C, Gaiţă D, Luca CT, Brie DM. Percutaneous device closure of a patent ductus arteriosus (poster).
- Cevei I, Mornoş C, Luca CT, Gaiţă D, Răşinar FC, Dăneasa L, Buhaceanu A, Şteţco A, **Tîrziu A.**, Brie DM. Genetic predisposition and its consequences in coronary artery disease (poster).

14/09/2023 – 15/09/2023 Timișoara

Conference of the Romanian Society of Medical Informatics RoMedInf, 37th edition

Tîrziu A., Mada L, Vernic C, Paunescu V. Immunoinformatics-Driven Design of an HPV-16 and -18 Synthetic Long Peptide Vaccine. Applied Medical Informatics; Cluj-Napoca; Vol. 45 (2023) – **RoMedInf award**

21/09/2022 – 24/09/2022 Sinaia, Romania

National Cardiology Congress, 61st edition

Active participation, poster - Cevei I, Mornoş C, Luca CT, Gaiţă D, Răşinar F, Dăneasa L, **Tîrziu A.**, Meche V, Brie D. An atypical case with acute myocardial infarction (poster)

11/05/2022 – 14/05/2022 Sibiu, Romania

Spring Conference of the Romanian Society of Cardiology, 3rd edition

Active participation, oral presentation - **Tîrziu A.**, Brie D, Gaiţă D. INOCA - pay close attention to small vessels!

07/07/2021 – 14/07/2021

The Protein Society's 35th Anniversary Symposium

Active participation - **Tîrziu A.**, Bojin FM, Gavriluc O, Paunescu V. Synthetic Long Peptides as Potential Platform in COVID-19 Vaccine Landscape, The Protein Society's 35th Anniversary Symposium, 7th-14th of July 2021

22/10/2020 – 24/10/2020

Physiology, from cell to patient ... and back to the cell

Active participation - Paunescu V, **Tîrziu A.**, Gavriluc O, Bojin F. Novel vaccination platform for COVID-19, the XIIIth National Congress of Romanian Society of Physiology "Physiology, from cell to patient ... and back to the cell", 22nd-24th October 2020,

Active participation - Bojin F, **Tîrziu A**, Gavriiliuc O, Paunescu V, “Paradigm shift in vaccine strategy – synthetic long peptides (SLPs)”, 4th Conference of the Romanian Association of Immuno-Dermatology, 49th Conference of the Romanian Society of Immunology, ³⁰ September-3 October 2020.

Active participation – Bojin F, Gavriiliuc O, Zogorean R, **Tîrziu A**, Paunescu V. Next Generation Sequencing for diagnostic, therapeutic orientation and new epitopes prediction in cancer therapy. SRF 2019 Conference. Physiology Today: Innovation, Integration, Translation. Timisoara, Romania, 25–26 October. *Physiology*, 2019 Supplement 1, Abstract book pg. 19.

PUBLICATIONS

- **Tîrziu, A.**; Bojin, F.M.; Gavriiliuc, O.I.; Faur, C.I.; Păunescu, V. From CAR-T Cells to Exosome-Based Immunotherapy: Exploring the Frontiers of Cell-Free Targeted Cancer Therapeutics. *Cells* 2026, 15, 70. <https://doi.org/10.3390/cells15010070>
- Brie, D.M.; Mornoș, C.; Adam, O.; **Tîrziu, A.**; Popescu, R.; Brie, A.D. Inflammatory Mechanisms in Acute Coronary Syndromes: From Pathophysiology to Therapeutic Targets. *Cells* 2026, 15, 72. <https://doi.org/10.3390/cells15010072>
- Brie, D.M.; Mornoș, C.; Adam, O.; **Tîrziu, A.**; Brie, A.D. Dyslipidaemia Treatment in Patients with Acute Coronary Syndrome: Is It Time to Move to Combination Therapy? *J. Clin. Med.* **2025**, *14*, 6445. <https://doi.org/10.3390/jcm14186445>
- Haidar, L.; Bănărescu, C.F.; Uța, C.; Zimbru, E.-L.; Zimbru, R.-I.; **Tîrziu, A.**; Pătrașcu, R.; Șerb, A.-F.; Georgescu, M.; Nistor, D.; et al. Beyond the Skin: Exploring the Gut–Skin Axis in Chronic Spontaneous Urticaria and Other Inflammatory Skin Diseases. *Biomedicines* **2025**, *13*, 2014. <https://doi.org/10.3390/biomedicines13082014>
- **Tîrziu, A.**; Bojin, F.M.; Gavriiliuc, O.I.; Buzan, R.M.; Zbîrcea, L.E.; Grijincu, M.; Păunescu, V. Anti-Her2 CAR-NK92 Cells and Their Exosomes: Generation, Characterisation, and Selective Cytotoxicity Against Her2-Positive Tumour Cells. *Int. J. Mol. Sci.* **2025**, *26*, 7648. <https://doi.org/10.3390/ijms26157648>
- Brie, A.D.; Christodorescu, R.M.; Popescu, R.; Adam, O.; **Tîrziu, A.**; Brie, D.M. Atherosclerosis and Insulin Resistance: Is There a Link Between Them? *Biomedicines* **2025**, *13*, 1291. <https://doi.org/10.3390/biomedicines13061291>
- Rășinar, C.F.; Liuba, P.; Brie, A.D.; **Tîrziu, A.**; Mornoș, C.; Brie, D.M.; Gaiță, D.I.; Luca, C.T. Endovascular Repair of Thoracic Aortic Atresia in Adults: A Narrative Review of a Rare Entity and Emerging Technique. *Life* 2025, 15, 1651. <https://doi.org/10.3390/life15111651>
- Christodorescu, R.M.; Brie, D.M.; Brie, A.D.; Mornoș, C.; Drăgan, S.R.; Luca, C.T.; Dărăbanțiu, D.; **Tîrziu, A.** Is It Safe to Initiate/Optimise the Medication of HFREF Patients During Hospitalisation for Acute Decompensation? *J. Clin. Med.* **2025**, *14*, 2664. <https://doi.org/10.3390/jcm14082664>
- **Tîrziu, A.**, Gavriiliuc, O.-I., Bojin, M.-F., Păunescu, V. (2025). Exploring CAR-PBMCs: A Novel Strategy Against EGFR-Positive Tumour Cells. *Biomedicines*, *13*(2), 264. <https://doi.org/10.3390/biomedicines13020264>
- Uța, C.; **Tîrziu, A.**; Zimbru, E.-L.; Zimbru, R.-I.; Georgescu, M.; Haidar, L.; Panaitescu, C. Alloimmune Causes of Recurrent Pregnancy Loss: Cellular Mechanisms and Overview of Therapeutic Approaches. *Medicina* 2024, 60, 1896. <https://doi.org/10.3390/medicina60111896>
- Christodorescu, R.M.; Brie, D.M.; Brie, A.D.; Nistor, S.; **Tîrziu, A.**; Dragomir, A.; Mornoș, C.; Drăgan, S.; Duda-Seiman, D.; Pop-Moldovan, A.; et al. Clinical and Demographic Characteristics of Patients Hospitalised for Decompensated Heart Failure with Extremely High NT-proBNP Levels. *Diagnostics* 2024, 14, 2507. <https://doi.org/10.3390/diagnostics14222507>
- Harich, O.-O.; Gavriiliuc, O.-I.; Ordodi, V.-L.; **Tîrziu, A.**; Paunescu, V.; Panaitescu, C.; Bojin, M.-F. In Vitro Study of the Multimodal Effect of Na⁺/K⁺ ATPase Blocker Ouabain on the Tumor Microenvironment and Malignant Cells. *Biomedicines* 2023, 11, 2205. <https://doi.org/10.3390/biomedicines11082205>
- **Tîrziu, A.**; Avram, S.; Mada, L.; Crișan-Vida, M.; Popovici, C.; Popovici, D.; Faur, C.; Duda-Seiman, C.; Păunescu, V.; Vernic, C. Design of a Synthetic Long Peptide Vaccine Targeting HPV-16 and -18 Using Immunoinformatic Methods. *Pharmaceutics* 2023, 15, 1798. <https://doi.org/10.3390/pharmaceutics15071798>
- **Tîrziu, A.**, Paunescu, V. Cytotoxic T-Cell-Based Vaccine against SARS-CoV-2: A Hybrid Immunoinformatic Approach. *Vaccines* 2022, 10, 218. <https://doi.org/10.3390/vaccines10020218>
- Vinter G., Vereș D.A., Muselin F., Zembrod B., Crîșnic D., Ioiart A., **Tîrziu A.**, Sărăndan M., Olei D., Bonciog D., Comanicu D. Simple algorithm in MATLAB for the interpretation of antibiograms-preliminary results. *Physiology/Fiziologia*. 2024 Jan 1(1).
- **Tîrziu A.**, Plesca D., Anghel S., Panaitescu C., Paunescu V. Exosomes as valuable players in health and diseases, *Fiziologia-Physiology*, 2021.31.1(101): 4-12.
- **Tîrziu A.**, IL-36γ: a sensor of pathogenic microorganisms in epithelial barriers, *Romanian Archives of Microbiology and Immunology*, 2021 Aug; 80(1): 99, ISSN 1222-38 91

● HONORARY DISTINCTIONS AND AWARDS

09/2021

Young Researcher – Oncogen Association

04/12/2018

"Eminent Student" Award – Timișoara City Hall, "University Horizons" Association

2016

Diploma of Merit – Department I – Anatomy and Embryology, Victor Babeș University of Medicine and Pharmacy

● PATENTS

Bojin FM, Gavriiliuc OI, Ordodi LV, Salagean AO, **Tirziu A**, Panaitescu C, Paunescu V. Product and method Based on Synthetic Long Peptides for Preventing SARS-CoV-2 Infection, Application RO202200005A-2022-01-20; Publication RO135709A0-2022-05-30; Published as RO135709A0

● BOOKS AND BOOK CHAPTERS

Panaitescu C, Tănăsie G, Tatu C, Nistor D, Haidar L, Georgescu M, Pătrașcu R, Mărgineanu B, Calma C, Goția L, Cotarcă M, Tamaș P, Zimbru E, Zimbru R, **Tirziu A**. Human Physiology, vol. II. Eurostampa Publishing House Timișoara, 2025, ISBN 978-606-32-1504-9:

Panaitescu C, Tatu C, Tănăsie G, Nistor D, Haidar L, Georgescu M, Tămaș P, **Tirziu A**. Human Physiology, vol. I. Eurostampa Publishing House, Timișoara, 2024, ISBN 978-606-32-1504-9

● COURSES

11/04/2024 – 13/04/2024

Advanced Life Support (ALS) Provider

Course organised by the European Resuscitation Council (ERC)

12/06/2023 – 16/06/2023

Summer School in Bioinformatics

Course organised by the European Molecular Biology Laboratory - European Bioinformatics Institute (EMBL-EBI), Wellcome Genome Campus, Hinxton, Cambridge, CB10 1SD, United Kingdom

16/11/2022

HPC in Artificial Intelligence and Machine Learning

Course organised by the National Centre for HPC Competence and the Institute for Research in Informatics, Bucharest, Romania, series: ICI_RONCC-AIML-004

12/08/2018 – 08/10/2018

BIF002x: Proteins: Alignment, Analysis and Structure

EdX course, University System of Maryland, College Park, Maryland, certificate id: [7ec8a7c8ffd44fbab397818a138882d3](#)

12/06/2021 – 19/06/2021

SOM.Y0015: Disaster Medicine Training

EdX course, Stanford Online, certificate ID: [f0d759ec501045ac8518d08b45b579fe](#)

● NETWORKS AND AFFILIATIONS

2024 – IN PROGRESS

European Society of Cardiology (ESC), Romanian Society of Physiology (SRF)

Contributing member

● DRIVING LICENCE

Driving licence: B